



PNAMP/CDI DMWG Seminar Series

February 17, 2016

U.S. Department of the Interior
U.S. Geological Survey

Goals

1. Complete the Science Data Lifecycle!!!!
2. What is Open Data?
3. U.S. gov actions, requirements for Open Data
4. Implementation at USGS and beyond
 - a. Overview, history of USGS Science Data Catalog (SDC), pathways to data.doi.gov, data.gov, and the Geospatial Platform
 - b. Revamped Science Data Catalog, late 2015
5. Future plans and goals related to Open Data



What is Open Data?

- * How does it differ from “regular data”?
 - * Open formats
 - * Licenses
 - * Collaboration
 - * Machine interaction
 - * Semanticyness
 - * Branding

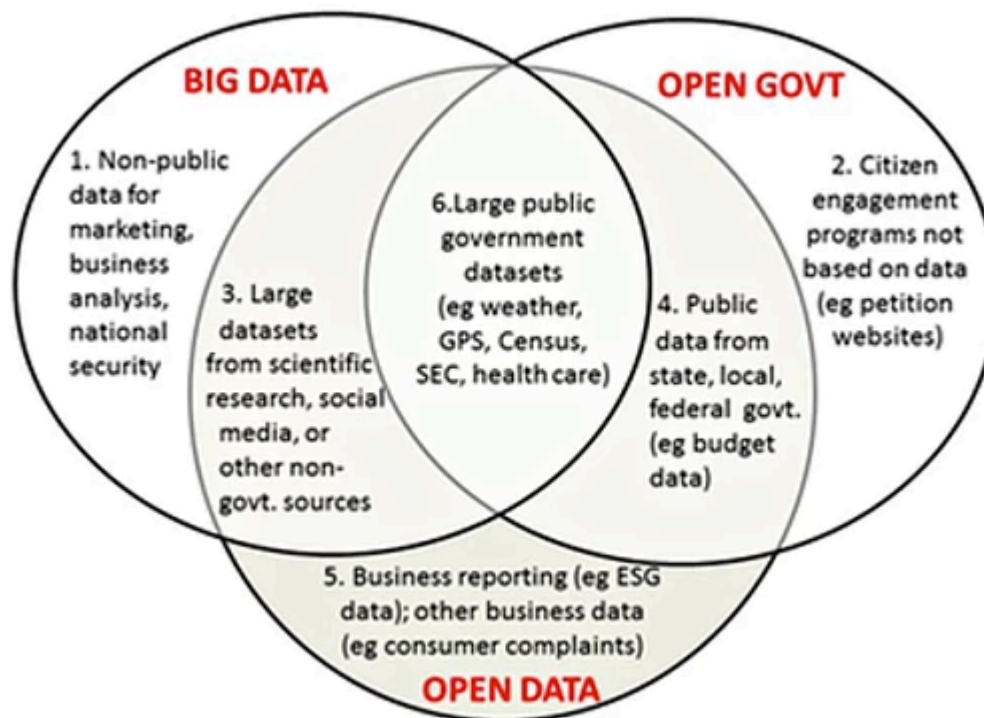


What is Open Data?

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Open formats

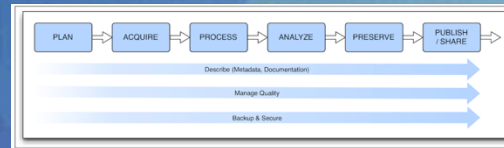
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Background & Drivers...

1. On May 9, 2013, the White House released the Executive Order, “Making Open and Machine Readable the New Default for Government.” This Order, built upon an earlier interagency memorandum released by the OSTP, was accompanied by an OMB Policy requiring:

- ❑ Inventory of Data
- ❑ Public Data Listing
 - ❑ data.doi.gov
 - ❑ data.gov
- ❑ Project Open Data: <https://project-open-data.cio.gov/>



2. USGS Science Data Management activities

- ❑ Data Management Instructional Memoranda
- ❑ Community for Data Integration
- ❑ Moving toward a “science data life cycle approach” in USGS
- ❑ Implementation of USGS Science Strategy Plans

The screenshot shows the USGS Data Management website. The header includes the USGS logo and the tagline 'science for a changing world'. The main heading is 'USGS Data Management'. Below this, there's a navigation menu with links: Home, Overview of Data Management, Plan, Acquire, Preserve, Publish/Share, Describe / Metadata, Manage Quality, Back Up & Secure, Training & Resources, References, Policy References, Partners & Projects, and Contacts. The main content area is titled 'Supporting and Enabling USGS Data Management' and features a large image of a person in a field. Below the image, there's a section 'Explore the USGS Science Data Lifecycle' with a grid of nine tiles, each representing a stage of the data lifecycle: Getting Started, Create Data Management Plan, Evaluate Data Acquisition Options, Organize Data, Create Metadata, Back Up Data, Preserve Data, Dispose of Old Data, and Publish Data. Each tile includes an icon and a brief description of the activity.

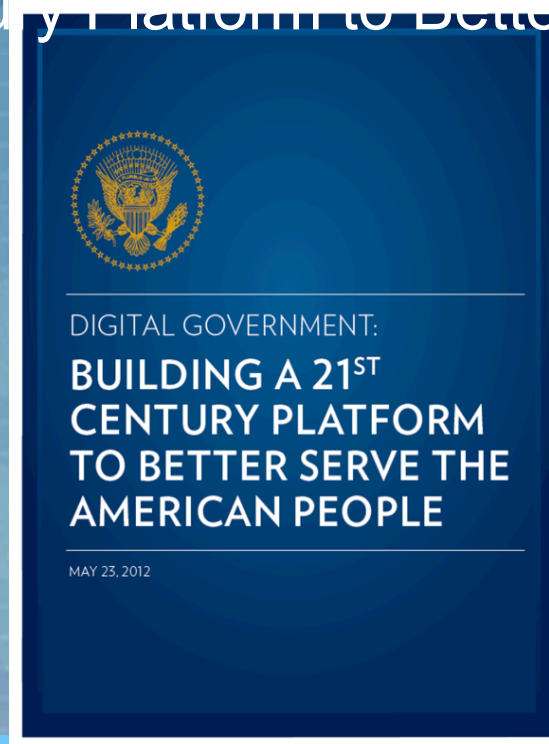
Open Government

- The Open Government Directive of December 2009 focuses on *transparency, participation, and collaboration*.
- Objectives:
 - ❑ Publish government information online
 - ❑ Improve the quality of information
 - ❑ Education and culture alignment
 - ❑ Create a policy framework for Open Government



The Digital Strategy

- On May 23, 2012 the Administration published “Digital Government: Building a 21st Century Platform to Better Serve the American People”
- Built on four guiding principles:
 - ❑ Information-Centric
 - ❑ Shared Platform
 - ❑ Customer-Centric
 - ❑ Security and Privacy



Digital Gov. Strategy Principles

1. An “**Information-Centric**” approach—Moves us from managing “documents” to managing discrete pieces of open data and content which can be tagged, shared, secured, mashed up and presented in the way that is most useful for the consumer of that information.
2. A “**Shared Platform**” approach—Helps us work together, both within and across agencies, to reduce costs, streamline development, apply consistent standards, and ensure consistency in how we create and deliver information.
3. A “**Customer-Centric**” approach—Influences how we create, manage, and present data through websites, mobile applications, raw data sets, and other modes of delivery, and allows customers to shape, share and consume information, whenever and however they want it.
4. A platform of “**Security and Privacy**”—Ensures this innovation happens in a way that ensures the safe and secure delivery and use of digital services to protect information and privacy.



Drivers (cont...)

- * Open Data Action Plan
- * Inclusion in quarterly “Cross Agency Priority” (CAP) goals
- * Interagency Working Groups
- * Policy Teams
- * FOIA Requests
- * Lobbying
- * Etc....



Focused Open Data Initiatives

- * “Button” projects
 - * Green Button--energy usage, <http://www.greenbuttondata.org/>
 - * Blue Button--health records, <https://www.healthit.gov/patients-families/your-health-data>
- * Focused sites:
 - * College matching/data: <https://collegescorecard.ed.gov/>
 - * National Climate Assessment: <http://www.globalchange.gov/browse/datasets>
- * Data.gov Communities
- * Geospatial Platform Communities
 - * National Geospatial Data Assets (NGDA)



Engaging the Public

- * Data Jam
 - * A closed-press, day-long ideation event with developers, designers, and subject matter experts focused on one topic and top related open data sets. Several are held in succession, leading up to a datapalooza three months later. Ex: Health Data jam (HHS), 21st Century Jobs Jam (OVP, Commerce, OSTP), Mitigating Campus Sexual Assault (Department of Education, Department of Justice)
- * Datapalooza
 - * An open press celebration, demo day, and platform to announce government open data releases or improvements. Ex: Safety Datapalooza (DOT, CPSC, FDA.)
- * Hackathon
 - * An event where developers, designers, and strategists work in teams to solve problems with software and/or hardware and demo the resulting work at the end of the day. Ex: White House “We The People” API Hackathon, The American Art API Hackathon
- * “Sunshine Week”: <http://sunshineweek.rcfp.org/> et al.
- * Challenges
 - * “App-lying USGS Data”
 - * Climate Resilience Data
 - * etc. <https://www.data.gov/climate/climate-challenges>

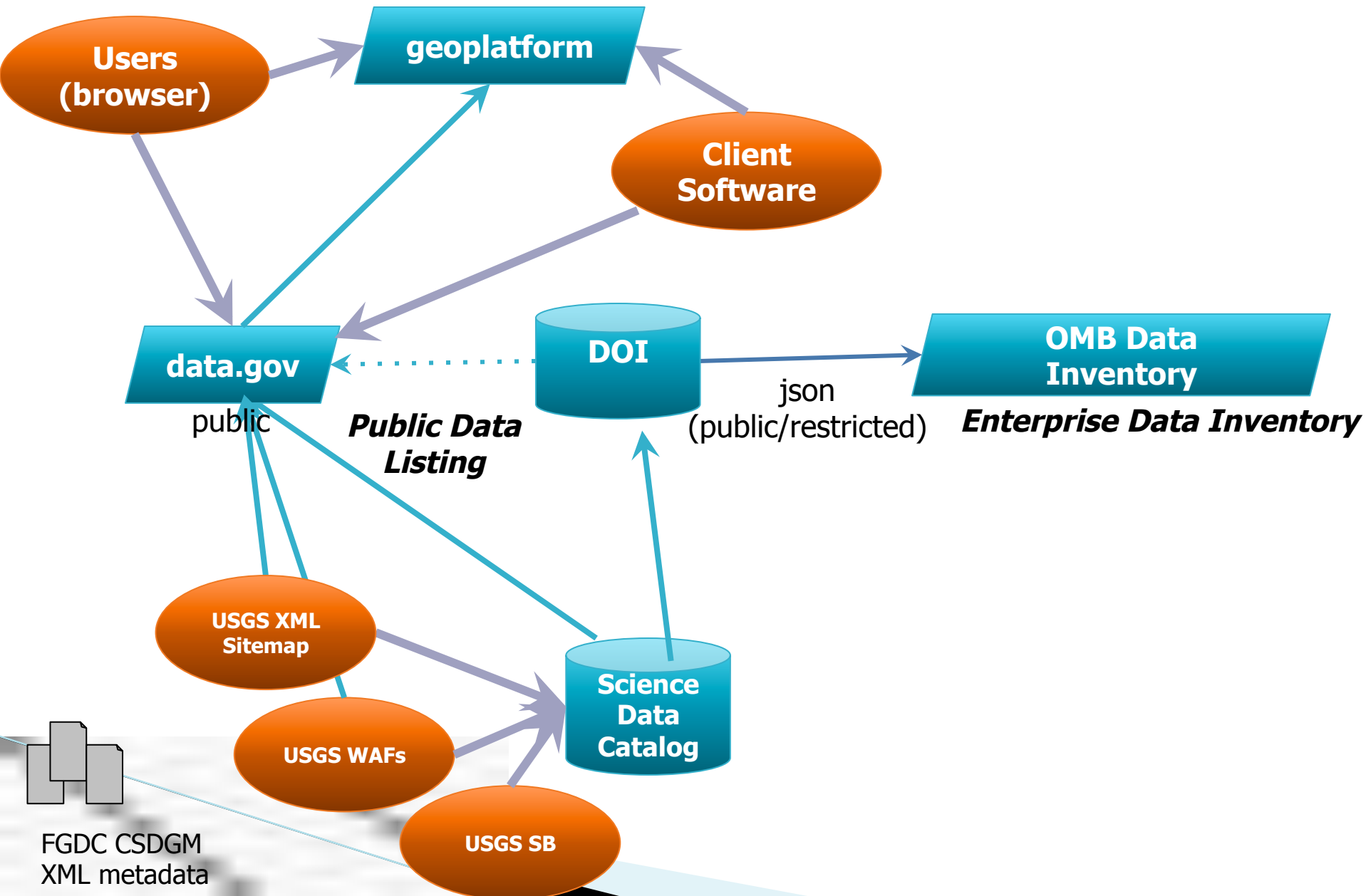


What is the USGS Science Data Catalog (SDC)?

1. Single point for USGS to provide its metadata to data.doi.gov, data.gov, OMB, geoplatform etc.
2. Organizes USGS data
3. Meets Open Data requirements for USGS
4. Provides metadata retrieval, visualization, download, & links back to original providers
5. Focus on scientific data



Data Publishing for Open Data and data.gov



2014-2015 SDC Development

- * Original version of SDC developed late 2013, launched early 2014
 - * ~3500 initial records
- * Integrated new data sources from several centers
- * Priority datasets:
 - * National Geospatial Data Asset (NGDA)
 - * Big Earth Data Initiative (BEDI)
 - * Data.gov communities



2015-2016 SDC Redesign


- Goals:

- Accommodate growth in Catalog (>doubling)
 - USGS Data Management IMs/Policies
 - Browse functionality
 - Improve highlighting of records
 - Incorporate large collections
- Usability, look and feel
 - Testing at UT usability lab
- Visualizing data
- Capturing harvest history and reporting



2015-2016 SDC Redesign

data.usgs.gov/datacatalog/#fq=dataType%3A(collection%20OR%20non-collection)&q=%3A*

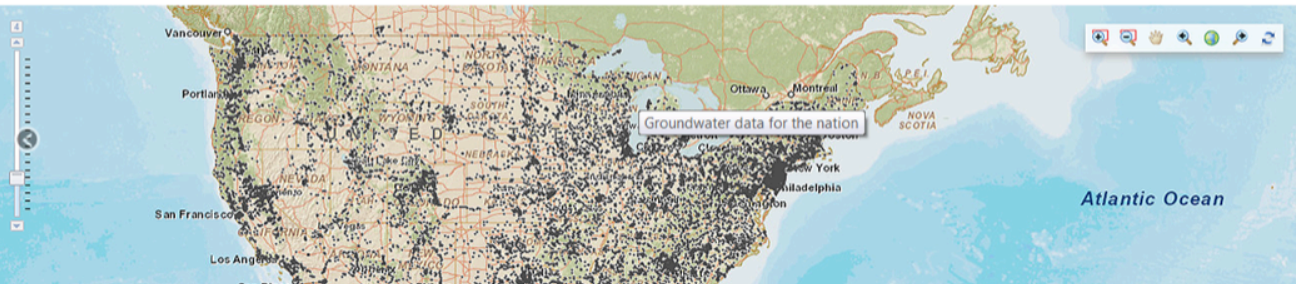


science for a changing world

U.S. Geological Survey Science Data Catalog

USGS Home
Contact USGS
Search USGS

Home Search Browse About myReports Help



Groundwater data for the nation

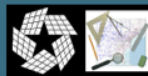
Atlantic Ocean

USGS Groundwater Data for the Nation
National Water Information System (NWIS)
Data Source: Water National Spatial Data Infrastructure Node
Mission Area: Water Resources
Begin Date: Unknown | End Date: 12/31/2014
The USGS compiles online access to water-resources data collected at approximately 1.5 million sites in all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands. [More](#)

Your source for open data within USGS

The USGS Science Data Catalog provides seamless access to USGS research and monitoring data from across the nation. Users have the ability to search, browse, or use a map-based interface to discover data.

Frequently Accessed USGS Data



The National Map
Data



Earthquakes
Hazards Program



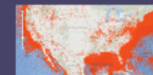
Currently Highlighted USGS Data



Biodiversity
Information
Serving Our Nation



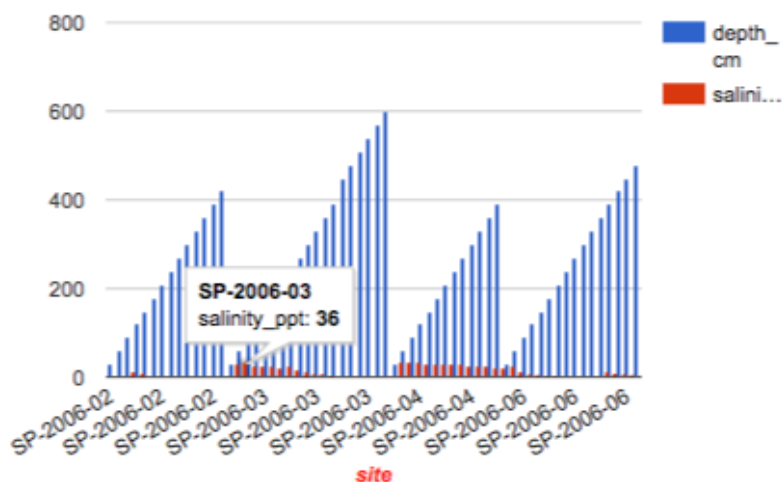
South Florida
Hydrology



Visualization

Comma-delimited Text File of the Porewater Salinity Values of Cores Collected August, 2006 in the Nauset Marsh Area of Cape Cod, Massachusetts

Edit the Chart



Columns (click x to remove columns):

Add a column

x depth_cm

x salinity_ppt

Open Data Throughout the Government



Open Data Throughout the Government

USDA Ag Data Commons Beta
ARS National Agricultural Library

Datasets About News Log in Register

Highlighted Program: Long Term Agroecosystem Research

A network of 18 research sites around the U.S. is collecting long-term data on agriculture, climate change, ecosystems and natural resource conservation. These data are vital to developing safe and sustainable agricultural production systems.

Search Ag Data Commons

Topics

Agricultural Products

Agroecosystems & Environment

Animals & Livestock

Bioenergy


Food & Nutrition

Genomics & Genetics


Maps & Multimedia

Plants & Crops


Highlighted Datasets



Nutrient and herbicide concentrations, loads, and daily discharge data for caves in the Goodwater Creek Experimental Watershed, a Long-Term...



Scientists are using the Blue Berry Genomics Database (BBGD) to investigate which genes are involved in acclimation to cold in blueberries.



The Baylor College of Medicine recently sequenced and annotated the *Oncopeltus fasciatus* genome as part of the 15k pilot project. The...

Programs

Life Cycle Assessment

Long Term Agroecosystem Research

Veterinary Pest Genomics Center


Actions

Access all Datasets

My Account and Datasets

News


11/12/15: USDA to Host Listening Sessions on Public Access to Scholarly Publications and Digital Scientific Data



USDA will be conducting a virtual listening session to solicit input on policies for public access to federally funded agricultural research data. The listening sessions should be of particular interest to stakeholders who have an interest in Ag Data Commons and other projects.

USDA Press Release

10/22/15: Ag Data Commons is live!



From the National Agricultural Library Weekly Report (October 20, 2015): "NAL's Ag Data Commons launches improved prototype site. NAL's Knowledge Services Division launched the latest beta version of the Ag Data Commons at https://data.nal.usda.gov."

10/1/15: 104 LTAR datasets now on Ag Data Commons

ata/

Open Data Throughout the Government

<https://open.nasa.gov/open-data/>

openNASA

Open Data

Explore With Us


Data Stories

Innovation Space

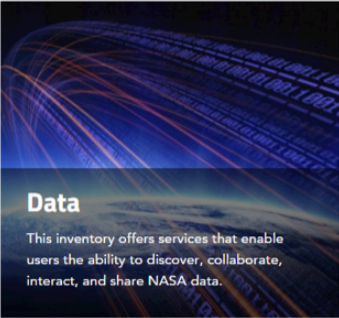
About

Open Data

We hope to spark your creative juices and equip you with data sets and tools to solve looming challenges here on Earth using NASA data, tools, and resources




We're Setting Data, Code and APIs free



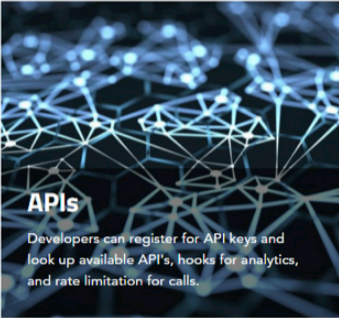
Data

This inventory offers services that enable users the ability to discover, collaborate, interact, and share NASA data.



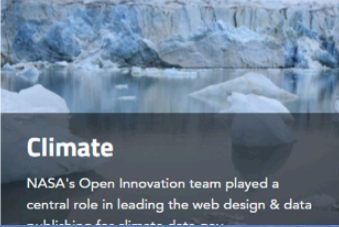
Code

A community-driven catalog of NASA's Software Release projects developers can use to register open source projects.



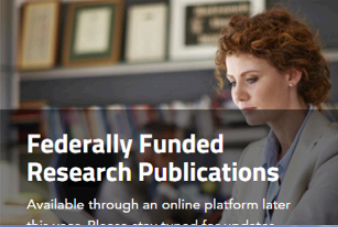
APIs

Developers can register for API keys and look up available API's, hooks for analytics, and rate limitation for calls.




Climate

NASA's Open Innovation team played a central role in leading the web design & data publishing for climate data now



Federally Funded Research Publications

Available through an online platform later this year. Please contact your agency



SPACE APPS

A NASA Open Innovation Initiative



Open Data Throughout the Government

https://open.nasa.gov/open-data/

https://data.nasa.gov

Welcome To

Sign Up Sign In

NASA'S DATA PORTAL

This site is a continually growing catalog of publicly Available NASA Datasets, APIs, Visualizations, and More.

NASA

Home About Data Catalog Developer Resources Suggest a Dataset

Explore by Category

Search to find a specific dataset...

The Dev Portal
The Developers Portal has documentation on our Application Programming Interface (APIs), code snippets for building apps, visualizations, and more. Click below to get started with our Developer Resources.
[Get Started](#)

Featured ★ Dataset
DASHlink Data Mining

Featured ★ Dataset
NASA Cloud Data

Mars Photos and Asteroids are just a GET request away
The NASA Open Data team is pleased to announce the availability of two new API Web Services: Near Earth Objects ...

Site Feedback

Privacy Policy and Important Notices

NASA Official: Jason Duley

NASA Official: Beth Beck

Future of Open Data

- ++ Technology
- + More and more .gov Open Data sites, growing support for concept
- +/- Increasing collaboration w/private industry
- +/- Growing power of outside interest groups, lobbyists
- ----- Funding challenges--unfunded mandates
- -/+ Institutional culture



OPEN DATA PORTAL RUSSIA

Search for data

☐ site ☒ datasets


















Datasets found: **5293**

Add dataset >



Video about portal

Topics [All projects based on open data](#)

 Government 2696	 Economics 735	 Education 547	 Transport 269	 Health 266
 Ecology 209	 Culture 186	 Sport 109	 Construction 72	 Entertainment 62
 Trade 51	 Tourism 24	 Electronics 23	 Security 16	 Cartography 10



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OpenData

u Bosni i Hercegovini

search 🔍

0 nama Datasets Groups Log in Register

🏠 Home / Republika Srpska

Republika Srpska

Budžet Republike Srpske

9x 

Statistički godišnjak Republike Srpske 2014

Izaje: Republički zavod za statistiku Republike Srpske, Banja Luka, Veljka Mladenovića 12d

1x  8x  1x 

 Ministarstvo Republike Srpske |  Fondacija CPI | Powered by DKAN, a project of NuCivic





OPEN DATA PORTAL

platform for data publication in machine-readable format

BENEFITS



FOR SOFTWARE DEVELOPERS

access to data in machine-readable format for development of new services and applications



FOR CITIZENS

obtaining of reliable data about state agencies' activities



FOR GOVERNMENT

transparency provision for open and competitive economy



FOR SOCIAL ORGANIZATIONS

improved control over governmental actions



FOR BUSINESSES

creation of new ideas and optimization of business processes

Search among 337 datasets

SEARCH



Employment, labor



Education



Transport and communications



Legal assistance



Culture



Citizenship, migration and immigration



Tourism and sport



Security



Healthcare

Contacts

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SDC: data.usgs.gov, sciencedatacatalog@usgs.gov

DOI CKAN: data.doi.gov

data.gov: data.gov

Geospatial Platform: geoplatform.gov

•USGS SDC Team: Mike Frame, Viv Hutchison, Lisa Zolly, Michelle Chang, Madison Langseth, Becky Uribe



We  data!